A PHYLLOCERATID AMMONITE FROM THE SPEETON CLAY (LOWER CRETACEOUS) OF YORKSHIRE

by P. F. RAWSON

ABSTRACT. *Hypophylloceras* cf. *perlobatum* (Sayn) is described and illustrated. It is the first phylloceratid ammonite to be recorded from the Neocomian of Britain.

IN Europe during the Lower Cretaceous period, the phylloceratid ammonites were essentially restricted to the Tethyan faunal province, and few specimens have been recorded from more northerly areas. In Britain, Spath (1923, pp. 15–20) described a few specimens of *Phylloceras subalpinum* (d'Orb.) and *Hypophylloceras seresitense* (Pervinquière) from the Gault but no phylloceratids have been recorded from the Lower Greensand (Casey 1960, p. xxxv) or from earlier Cretaceous beds. Outside Britain few phylloceratids have been described from the Neocomian Boreal province. Von Koenen (1902, p. 39) recorded one specimen of *Phyllopachyceras* aff. *winkleri* (Kilian) from the Lower Hauterivian Radiatus Zone of North Germany, and Donovan (1953, p. 100) described a single specimen of *Phylloceras* sp. from the Middle Valanginian of Traill Island, East Greenland.

Recent collecting at the type locality of the Speeton Clay in Filey Bay, Yorkshire, has yielded a specimen of *Hypophylloceras* cf. *perlobatum* (Sayn) from bed C8 of the Lower Hauterivian. Its occurrence in this bed is of particular interest as several other genera of Tethyan affinity found at Speeton are first recorded at this horizon, including *Lytoceras* (C. W. Wright collection), *Eodesmoceras*, *Spitidiscus*, and rare crioceratids. The crioceratids become much more common in the overlying bed C7.

The specimen is deposited in the author's collection in the Department of Geology, the University of Hull, catalogue number HU.C/Rn.460.

SYSTEMATIC DESCRIPTION

Family PHYLLOCERATIDAE Zittel 1884
Subfamily PHYLLOCERATINAE Zittel 1884
Genus HYPOPHYLLOCERAS Salfeld 1924
Hypophylloceras cf. *perlobatum* (Sayn)

Plate 72, figs. 1–3; text-fig. 1*a*

Cf. 1901 *Phylloceras serum* Oppel var. *perlobata* Sayn (p. 7, fig. 3, pl. 1, figs. 6–8).

Description. The specimen is a wholly septate pyritized nucleus, with fragments of the original shell preserved. The test is compressed and involute, with a steep umbilical wall. The whorl flanks are flat, even near the umbilical edge, and the venter rounded. The shell is covered with fine, dense, and slightly sinuous striae, which cannot be seen on the internal mould. The suture (fig. 1*a*) is complex; the first lateral lobe is asymmetrical and

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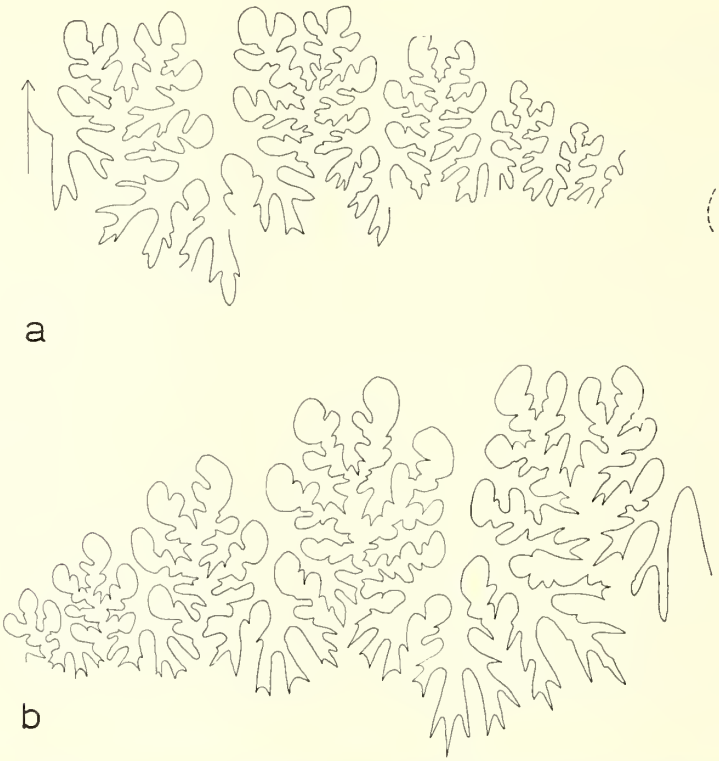
much larger than the ventral and second lateral lobes, and the saddle endings are tetraphyllic.

Dimensions: Maximum diameter: 31·5 mm.; at diameter of 28·2 mm., whorl height 16·9 mm. (59·9%), thickness 9·5 mm. (33·7%), width of umbilicus 2·0 mm. (7·1%).

Remarks and Affinities. The classification of the Phylloceratid ammonities at generic and subgeneric level fluctuates considerably from author to author, but most recent authorities (for example Arkell 1957, and Wiedmann 1963) place the compressed, finely ribbed



TEXT-FIG. 1. *a*, Suture-line of *Hypophylloceras* cf. *perlobatum*, HU.C/Rn.460. *b*, Suture-line of *Hypophylloceras perlobatum*, reproduced from Sayn (1901, p. 8, fig. 3). Both figures × 6.

species with tetraphyllic saddle endings and asymmetrical lobes in *Hypophylloceras*. It is this more complex suture-line which distinguishes *H.* cf. *perlobatum* from *Phylloceras serum* and allied species which resemble *H.* cf. *perlobatum* in general form and sculpture.

Few species of *Hypophylloceras* have been described from the Valanginian and Hauterivian of the Tethyan province, so that it is very difficult to make a close comparison with other forms.

EXPLANATION OF PLATE 72 (continued on p. 460)

Figs. 1–3. *Hypophylloceras* cf. *perlobatum* (Sayn). Lateral and ventral views. HU.C/Rn.460, × 2.

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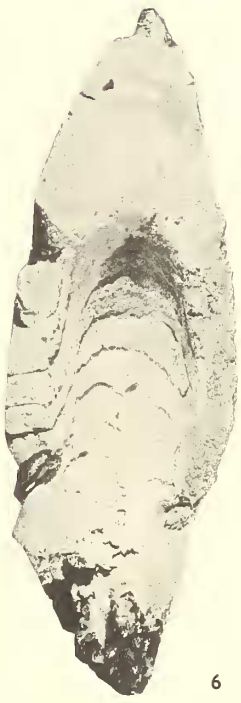

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RAWSON, *Hypophylloceras* from the Speeton Clay
JENKINS, *Cheiloceras* from New South Wales